



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

|  |             |                      |                     |                  |
|--|-------------|----------------------|---------------------|------------------|
| APPLICATION NO.                            | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/697,497                                 | 10/27/2000  | Ronald Coleman       | CITI0192-US         | 3524             |
| 75127                                      | 7590        | 03/21/2011           | EXAMINER            |                  |
| KING & SPALDING LLP (CITI CUSTOMER NUMBER) |             |                      | AKINTOLA, OLABODE   |                  |
| ATTN: Eric Sophir                          |             |                      | ART UNIT            | PAPER NUMBER     |
| 1700 PENNSYLVANIA AVENUE, NW               |             |                      |                     |                  |
| SUITE 200                                  |             |                      | 3691                |                  |
| WASHINGTON, DC 20006                       |             |                      |                     |                  |
| NOTIFICATION DATE                          |             | DELIVERY MODE        |                     |                  |
| 03/21/2011                                 |             | ELECTRONIC           |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Citi\_Docket@kslaw.com

1                   UNITED STATES PATENT AND TRADEMARK OFFICE

2

---

3

4                   BEFORE THE BOARD OF PATENT APPEALS  
5                   AND INTERFERENCES

6

---

7

8                   *Ex parte RONALD COLEMAN*

9

---

10

11                   Appeal 2010-004097  
12                   Application 09/697,497  
13                   Technology Center 3600

14

---

15

16                  Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and  
17                  ANTON W. FETTING, *Administrative Patent Judges.*  
18                  FETTING, *Administrative Patent Judge.*

19                  DECISION ON APPEAL<sup>1</sup>

---

<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

1 STATEMENT OF THE CASE<sup>2</sup>

2 Ronald Coleman (Appellant) seeks review under 35 U.S.C. § 134 (2002)  
3 of a final rejection of claims 1-9, the only claims pending in the application  
4 on appeal. We have jurisdiction over the appeal pursuant to  
5 35 U.S.C. § 6(b) (2002).

6 The Appellant invented a way of measuring financial risks associated  
7 with trading portfolios (Specification 1:6-9).

8 An understanding of the invention can be derived from a reading of  
9 exemplary claim 1, which is reproduced below [bracketed matter and some  
10 paragraphing added].

11 1. A method for identifying plausible sources of error in a risk  
12 assessment system, comprising:

13 [1] identifying at least one variable of the risk assessment  
14 system;

15 [2] determining a first hypothesis about the at least one  
16 variable;

17 [3] providing an initial probability of the first hypothesis about  
18 the at least one variable;

19 [4] identifying a change of value in the at least one variable of  
20 the risk assessment system;

---

<sup>2</sup> Our decision will make reference to the Appellant's Appeal Brief ("App. Br.," filed June 29, 2009) and Reply Brief ("Reply Br.," filed December 15, 2009), and the Examiner's Answer ("Ans.," mailed October 15, 2009).

[5] determining by probabilistic induction at least one cause of the change of value in the at least one variable of the risk assessment system, wherein the at least one cause is a plausible source of error; and

[6] evaluating the initial probability of the first hypothesis based on the at least one cause.

The Examiner relies upon the following prior art:

Dumais US 6,192,360 B1 Feb. 20, 2001

Matthews, Jr. US 6,526,358 B1 Feb. 25, 2003

Fogel US 6,542,905 B1 Apr. 1, 2003

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over gel, Matthews, and Dumais.

## ISSUES

The issue of obviousness turns on whether Matthews evaluates the initial probability of Fogel's first hypothesis based on at least one cause.

## FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

### *Facts Related to the Prior Art*

Fogel

01. Fogel is directed to identifying data integrity issues and showing how they can be resolved. Fogel 3:33-36.

02. Data integrity issues are patterns of items that could not result from accurate assessment or are unlikely to arise. Fogel 5:41-49

03. Fogel describes some of the emergent patterns that would suggest data validity or integrity in columns 5 and 6.
04. Fogel describes some of the tests used to discern such emergent patterns at columns 9 and 10.

Matthews

05. Matthews is directed to an automated computer based data integrity auditing system. Matthews 2:1-17.
06. Matthews describes the use of a hypothesis tester with a Bayesian likelihood ratio test to determine when an alternate hypothesis becomes more likely. Matthews 6:19-27.

Dumais

07. Dumais is directed to determining whether an object belongs to a particular category. Dumais 1:7-9.
08. Dumais describes how Bayesian networks operate. Dumais 3:35 – 4:42.

## ANALYSIS

We are unpersuaded by the Appellant's argument that the art fails to describe limitation [6] of evaluating the initial probability of the first hypothesis based on the at least one cause. Appeal Br. 2-3.

Basically, Fogel describes a mechanism for evaluating data integrity (FF 01). The fundamental assumption is there are no data integrity issues until a pattern suggesting such an issue arises. FF 02 and 03. So, Fogel identifies its data as a set of variables whose risk of data integrity is to be assessed, and

1 the patterns that data presents. Fogel's first hypothesis is that there are no  
2 data integrity problems. The probability is exactly 100% until a pattern  
3 suggesting otherwise emerges. The patterns that emerge from such data are  
4 monitored and a pattern change that suggests data integrity issues are  
5 identified. So far, Fogel describes limitations [1]-[4]. Now Fogel tests the  
6 data to determine the likely cause of the emergent pattern. FF 04. Fogel  
7 leaves the implementation details to one of ordinary skill.

8 To describe how one of ordinary skill would have tested the data in  
9 Fogel, the Examiner cited Matthews which show the use of a hypothesis  
10 tester with a Bayesian likelihood ratio test to determine when an alternate  
11 hypothesis becomes more likely. FF 06. Thus, Matthews describes how one  
12 of ordinary skill would have implemented Fogel's test to perform limitation  
13 [5]. So far, none of these limitations are under contention.

14 Limitation [6] under contention requires evaluating the initial probability  
15 of the first hypothesis. The Appellant has not limited the manner of  
16 evaluation, as the Examiner found at Ans. 6. Matthews clearly performs  
17 such an evaluation when it selects an alternate hypothesis, which implicitly  
18 rejects the first hypothesis. The Examiner brought in Dumais to clarify the  
19 nature of Matthews' Bayesian test. FF 08. The Appellant argues that  
20 Matthews selects a hypothesis. Reply Br. 4. As may be, but Matthews'  
21 selection implicitly evaluates the initial hypothesis in so doing.

## 22 CONCLUSIONS OF LAW

23 Rejecting claims 1-9 under 35 U.S.C. § 103(a) as unpatentable over  
24 Fogel, Matthews, and Dumais is not in error.

1 DECISION

2 To summarize, our decision is as follows.

- 3 • The rejection of claims 1-9 under 35 U.S.C. § 103(a) as unpatentable  
4 over Fogel, Matthews, and Dumais is sustained.

5 No time period for taking any subsequent action in connection with this  
6 appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.  
7 § 1.136(a)(1)(iv) (2007).

8

9 AFFIRMED

10  
11  
12

13 mev

14

15 Address

16 KING & SPALDING LLP (CITI CUSTOMER NUMBER)  
17 ATTN: Eric Sophir  
18 1700 PENNSYLVANIA AVENUE, NW  
19 SUITE 200  
20 WASHINGTON DC 20006